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Integrated Management Information System project

Eighth progress report of the Secretary-General

SUMMARY

The Integrated Management Information System (IMIS) was conceived to replace current administrative systems, many of which were more than 30 years old, and to provide all major duty stations with a modern system. In addition, it aims at contributing to the current efforts to improve the efficiency of the administrative and financial functioning of the Secretariat by enforcing consistent processing procedures and by improving quality and timely availability of financial and personnel data throughout the Organization.

During the past 12 months major steps were achieved towards the completion of the development and implementation of the system and the establishment of a maintenance structure. In parallel, the project has emerged as one of the major components of the reform process in the United Nations. New work methods are being introduced, processes are being rationalized, delegation of authority is being facilitated, comprehensive and detailed information is being made available very rapidly and staff members skills are being upgraded.

Because of its complexity and of the broad range of activities it covers, it was, however, not easy to reach the targets already attained, and difficulties, common in this kind of undertaking, are being faced and dealt with. Nonetheless they should not be underestimated. These are of multiple nature, from system errors to workflows that need to be reviewed, from bad data in pre-existing systems to the difficulties inherent in the need for

hundreds of staff to change completely the way they have been working for many years and to learn new concepts and procedures introduced with the new system.

During 1996, the human resources applications were installed at six offices away from Headquarters and implemented at two. At Headquarters, the new financial systems, including procurement, were implemented together with a new account code structure, a funds sufficiency checking mechanism to ensure that allotments are not exceeded and a new cheque printing system that ensures greater security and controls. The difficulties that were encountered, and are described in detail in the report, should, however, not hide the fact that the system generally works satisfactorily, is stable and reliable and that the integration between the various applications has been successful. The growing international interest in the achievements of the United Nations with the development and implementation of the system on the part of the specialized press and of the industry in general confirm the success of this difficult undertaking.

In fact, more and more, it is being realized that IMIS represents a starting point for the United Nations, the beginning of a new way to perform administrative business, re-engineer procedures and delegate greater authority to managers for the fulfilment of their work programmes. The work is not completed as yet, major difficulties still need to be overcome, but it appears already that there will be no regret for having undertaken this endeavour, where failure is more common than success. In this context, it should be recalled that the main reason for the development of the system was and remains the need to replace obsolete systems or to introduce systems where they are not available.

I. INTRODUCTION

1. The purpose of the Integrated Management Information System (IMIS), which was approved by the General Assembly in section XII of its resolution 43/217 of 21 December 1988, is to develop an integrated system for the processing of, and reporting on, administrative actions at all major duty stations. IMIS is progressively replacing the numerous independent systems, many of which, built many years ago and mostly for regular budget activities, are no longer able to provide the support needed by management at a time of rapidly changing needs and increasing demands made on the administrative sector to support extensive peacekeeping activities and those financed from extrabudgetary resources. The main areas covered by the system are: personnel management; post management; accounting; purchasing; travel; payroll; and budget execution. The Secretary-General has submitted seven progress reports, in 1989 (A/C.5/44/8), 1990 (A/C.5/45/20), 1991 (A/C.5/46/24), 1992 (A/C.5/47/27), 1993 (A/C.5/48/12), 1994 (A/C.5/48/12/Add.1) and 1995 (A/C.5/50/35).

2. Release 1 of the IMIS system, comprising personnel applications, was successfully installed at Headquarters in September 1993. Release 2, personnel entitlements, and Release 3, financial and support services applications, were implemented in April 1995 and 1996 respectively. The implementation of Release 1 confirmed the benefits that the Organization and Member States would derive from the system and the validity of the technological choices that had been made. It also revealed, however, that the Organization's strategy for the completion of the software construction phase of the system and for its successful implementation worldwide had been inadequate. In early May 1994, a thorough reprogramming and rebudgeting of the project was therefore undertaken, with the aim of redefining the level of resources that would be required for its completion and to determine the resources that could be internally reassigned to the project, so as to provide Member States with all the necessary accurate information on the expected future costs of the project.

II. STATUS OF THE PROJECT

3. As planned, Release 3, by far the largest and most complex of the entire project, was implemented at Headquarters on 1 April 1996. In the last progress report it was indicated that this implementation would put to the test the basic integrity of the system and that it would take several months before normal operations would be in place. Section III of the present report describes in detail the impact of this implementation by area of activity covered by Release 3 and of the work in progress related to it.

4. The development and implementation of Release 3 has indeed proven to be challenging. Difficulties have been encountered with the implementation of this Release resulting in the need to assign more resources to Release 3 on a priority basis. As a result, resources planned to be devoted to work on Release 4, payroll, personal insurance management and time and attendance proceeds, have temporarily been shifted to Release 3. This exposure will benefit the development effort since it will ensure a better integration of the payroll with the accounting part of the system.

5. In parallel, work is being conducted to upgrade the software in order to accommodate the specific requirements for worldwide operations, in particular in the finance area, to ensure timely and accurate consolidated reporting and financial and personnel data exchange between the duty stations. The difficulty and complexity of this part of the development work should not be underestimated, since, although the basic design has been formalized since 1992, it has constantly gone through refinements along with the development of the system to ensure that it would fully integrate with the changes made in the applications area. This part of the software is planned to be completed and ready for implementation by the end of the first half of 1997.

6. Work has also continued to refine Release 2, Personnel entitlements, to ensure that it will fully meet the processing needs for payroll.

7. IMIS had been conceived as a system for the Organization as a whole, providing for the first time a consistent set of applications to all duty stations. The deployment of the system to offices away from Headquarters started during 1996. In June, the human resources applications were successfully implemented at the United Nations Office at Vienna. This was followed by the implementation at the Economic and Social Commission for Asia and the Pacific, at Bangkok, in September. Section V below provides details on the plans for implementation at other offices.

8. In March 1996, the United Nations Development Programme (UNDP) successfully implemented in New York Release 1 of the system, while the United Nations Children's Fund (UNICEF) and the Office of the United Nations High Commissioner for Refugees (UNHCR) are making progress towards the implementation of that release.

9. The impact of the implementation of Release 3 at Headquarters is evidenced by its usage. Between 1 April and 30 September 1996, more than 1,100 staff members used the system, all releases included. The average number of users per day, since 1 April has constantly increased and now consistently exceeds 400. The number of users concurrently connected to the system exceeds 250 most of the time, and often exceeds 300. Consequently, the number of transactions in the system has doubled since 1 April 1996.

10. Once normal activities are resumed and the workload in the system is no longer impacted by various activities related to the implementation of Release 3, it will be possible to generate quite precise management statistics on the number of transactions, by type and by user, for example, to better analyse the type of work that is being performed, the values of the financial transactions and the purpose of these transactions (regular activities, peacekeeping, trust funds, etc.). These reports will require detailed analysis, since there are no comparative reports available for the past, and could then be used as tools for further streamlining and rationalizing the processes and, if necessary, reviewing the allocation of resources to the various activities.

11. It is important to note that it is already possible to see the importance of the system in the support of the daily operations related to peacekeeping activities. In fact, for the period from 1 April to 30 September 1996, more

than one third of all transactions in the system related to peacekeeping operations.

12. The annex to the present document confirms also the flexibility of the system and the level of delegation of authority and decentralization that has already been achieved. It also demonstrates that, thanks to IMIS, the decentralization does not diminish the monitoring capabilities of the central administration, since it will be possible to generate detailed summary reports that facilitate the analysis and review of all activities.

13. In that respect, it should also be noted that inquiry access to IMIS and to its reporting facilities have been provided to both the Board of External Auditors and the Office of Internal Oversight Services.

14. The annex contains a summary of the current status of the project and of its various activities.

III. INITIAL ASSESSMENT OF RELEASE 3 IMPLEMENTATION

15. It is, of course, too early to proceed to a detailed assessment of Release 3 implementation owing to its complexity and to the adjustments that are still under way. It should be recalled in this respect, that Release 3 is far more complex than Release 1 and introduced radical changes in workflows and processing of financial transactions and that it took one year to stabilize Release 1 usage.

16. It is indeed difficult to present a balanced view of the current status, since, with a view to keeping the Member States informed of the situation, too much emphasis may be given to the difficulties encountered rather than highlighting the positive achievements. The present section of the report should therefore be read in conjunction with section X below, entitled "The Integrated Management Information System project in perspective". The most important factor is that, as described in section II, the system is operational and most of the administrative work at Headquarters is already based on it.

17. The problems that were encountered can be related to a variety of causes. One major difficulty that should not be underestimated is the result of the fact that in one day the way most of the financial transactions were performed for dozens of years was changed. While every effort had been made to try to foresee most of the details related to financial transactions, as expected, issues arose that required increased effort and time on the part of the implementation team, and the staff of the Accounts Division in particular, for their resolution. The lack of certain functionalities and issues related to reports and system errors compounded the difficulties. Most of these problems have now been identified and resolved or are being worked on, and the situation is improving on a regular basis.

18. In many instances, the problems encountered are related to the strict financial controls being enforced through IMIS. These result in the rejection of incorrect data and require a considerable amount of effort to review and correct the errors. This is a confirmation of the validity of the design of

IMIS and of the fact that, once this transitional period is completed, it can be expected that the Organization and Member States will have at their disposal more detailed information than in the past.

19. The scope of Release 3 was described in detail in section V of the seventh progress report (A/C.5/50/35). Here below is a status report on the various areas:

New account code structure

20. The structure of the new chart of accounts was introduced with Release 1, but it is only with Release 3 that it has become an essential component of the financial operations of the Organization. It should be recalled that the new chart, composed of seven separate elements, departs radically from that used so far and is in line with modern operating and reporting requirements. The transition to the new structure, replacing the old one which had been in use for 50 years, is an additional challenge to and achievement of the IMIS project. Now, the users at large need to become familiar with the new structure and how to use it. The translation of the old to the new values was complex owing to the volume of account codes to be translated and to the fact that, because the structures are completely different, there is no one-to-one correspondence between the old and new values. Some errors have therefore occurred, and this has impacted the results of the conversion of data in some areas. It should also be noted that until the entire system has been deployed at all duty stations, it will be necessary to continue to use the old systems at Headquarters that bring data from these offices into IMIS. Therefore, the old and new account code structures will have to co-exist for some time and conversion problems may persist.

Data conversion

21. For the reasons explained in the preceding paragraph, the data conversion was extremely complex and difficult, in particular owing to the fact that it took place after the beginning of the biennium, and current expenditures, obligations and allotments had to be brought into IMIS. As of 1 April, about 16 per cent of the amounts or obligations to be converted had been rejected by IMIS because of its much more stringent controls. As of the end of September, out of a total amount of $2,081,699,000 (28,000 obligation records) to be converted, there were only $2,665,435 (254 obligation records) pending conversion. These problems are due primarily to missing or incorrect funding.

Recording of appropriations, allotments and sub-allotments

22. The old account code structure continues to be used also for the system of the Programme Planning and Budget Division, where allotments and sub-allotments are issued. A complex bridge has been built between IMIS and the budget system by which allotments are automatically transferred into IMIS and become the basis of most of the financial transactions. In view of the strict funds sufficiency checking in IMIS, the monitoring of expenditures is done on an ongoing basis and not ex post facto as it was in the past. This is a major change in the way the Organization operates, and some difficulties have been experienced. The

synchronization between the two systems now appears, however, to have been achieved.

Pre-encumbrance, obligations and funds sufficiency checking

23. As expected, and as referred to in the previous progress report (A/C.5/50/35, para. 33), the new strict control mechanism by which transactions cannot be completed in the case of absence of sufficient funds was found difficult to administer owing both to its novelty and to the fact that initially not all allotments could be converted for the reasons explained above. Some problems still persist owing to expenditures, for example for overtime, that are recorded through Payroll and are rejected because of insufficient funds when the data is brought into IMIS. The system, however, has proven that it will meet expectations in this area, and it can reasonably be expected that the long-standing problems of expenditures exceeding allocations will be rapidly eliminated.

Travel processing

24. Because of additional changes to the way the system would operate, identified since the last progress report was prepared, the travel functionalities could not be implemented on 1 April 1996. The Organization was therefore forced to establish a "workaround" procedure to ensure funds sufficiency checking. This indeed created some additional work for Executive Offices and the Accounts Division, but the situation is gradually improving. The travel functionalities are still being worked on and are expected to be fully implemented by the end of the first quarter of 1997. It should be recalled that this functionality covers the entire process from the initial travel request to the travel claims, which will not only include the settlement with the traveller, but will also make payments to vendors for tickets, shipments and related insurance.

Payables

25. The payables system introduced in the United Nations for the first time with IMIS for disbursements against approved obligations once the goods or services have been received works satisfactorily. Some problems were encountered immediately after implementation, since, for a variety of reasons (expired validity, wrong account codes, lack of allotted funds, allotments not converted, allotments fully expended, etc.), not all obligations had been converted. A considerable amount of time and effort were required to regularize a high number of cases in suspense. The system also introduced the on-line certification of the receipt and inspection of goods to enable the Accounts Division to proceed to the disbursements. The users had to adjust to this new procedure and the operation seems now to proceed satisfactorily.

Receivables

26. Various types of receivables, such as assessments from Member States, staff receivables, United Nations agencies and other institutions, had to be converted into IMIS from subsidiary ledgers maintained in the old system. Over 95 per cent of this task has been completed. Some problems were encountered in

defining various categories of receivables and classifying credit balances in receivable accounts. This led to an initial delay in billing various entities, except for assessments to Member States, which are handled separately.

Cash management

27. Receipts, deposits and disbursements are now processed through IMIS. With the transition into the new system, this initially created an additional workload in the Treasury. However, as improvements are made in the software and additional software for Treasury operation is installed, it is anticipated that it will have a positive impact on the Treasury. Presently all the cheques are processed through a cheque-writing software installed in Treasury with the information from IMIS transmitted over an interface program.

28. A system of "match pay" with the bank was also implemented whereby payments processed through IMIS can be transmitted to the bank electronically. The bank will honour cheque payments only when there is a match with the data transmitted from the Treasury. This assists in preventing any forged cheques from being presented to the banks for payment. Also the number of payments made via electronic funds transfers has been increased to limit the costly processing of cheques.

Batch processing

29. Because of the need to maintain a higher than expected level of support to the users or to issue resolutions, work in this area encountered delays. Priority has now been given to the completion of the processes for the preparation of the financial statements for both the regular budget and the technical cooperation programme.

Bridges and interfaces

30. A total of 19 bridges and interfaces with existing systems, which will either be replaced by IMIS or progressively phased out, have been introduced with Release 3. With the exception of the interface with the procurement system being introduced in phases, all of them were completed, are operational and work satisfactorily. Difficulties have been encountered in particular in two cases, the payroll bridge and the inter-office vouchers bridge. In the first case, difficulties arise from the fact that the current payroll system does not contain an internal mechanism to validate account codes against which expenditures are being charged. This is a well-known problem that has been identified on several occasions by the external and internal auditors. Since these controls exist in IMIS, expenditures charged to wrong accounts have been rejected by it, leaving a certain amount of expenditure not recorded in IMIS. The Accounts Division and the Executive Offices have been working towards the resolution of these problems. The Accounts Division also maintains detailed records of the amounts rejected by IMIS to ensure that global expenditure reports reflect actual expenditures.

31. Concerning the inter-office vouchers bridge, the difficulties arise from the fact that the structure and functioning of IMIS differ radically from the past, and therefore only a minor percentage of the overall transactions can be

loaded automatically into IMIS. This affects expenditure reports, in particular for technical cooperation activities. The Accounts Division keeps detailed records of the expenditures rejected by the bridge, and a temporary workaround has been established with the Department of Development Support and Management Services to provide that Department with the required information. Work is under way to identify modalities to increase the number of transactions that can automatically be migrated into IMIS.

32. It is worth noting that the complex interface with the cheque-writing software referred to in the previous progress report (A/C.5/50/35, para. 36) has proven to be working very efficiently, increasing controls and security in the issuance of cheques. As an example, during the first few days of operations of Release 3, more than 9,000 cheques were generated for United Nations, UNDP and UNICEF staff worldwide.

Procurement processing

33. As scheduled, part of the integration between IMIS and the procurement software package was introduced with Release 3. Work is progressing on the remainder of the interfaces and will be introduced incrementally into production. The requisitions are being processed in IMIS for funds sufficiency checking and pre-encumbrances are being created. This requisitioning process also uses a new concept of an on-line catalogue of commonly procured items. Once the normal procurement activities have been completed, the purchase orders are checked in IMIS against the associated pre-encumbrance line amounts before obligations are created.

34. Between 1 April and 11 October 1996, a total of 3,314 requisitions were issued and accepted. During the first weeks of operation of the system, a very high number of requisitions had to be returned by the Procurement and Transportation Division, owing to requisitioners having to adjust to the new procedures, insufficient descriptions of goods or services, missing delivery information, etc. The situation has normalized, and the rate of return of requisitions has dropped to less than 5 per cent of the total.

Suppliers roster

35. Over 5,000 suppliers, including those required for the Procurement and Transportation Division, the Department for Development Support and Management Services, the Library and Publications Division, the Treasury, the United Nations Gift Centre, the Department of Public Information, and the Electronic Services Division were uploaded into IMIS at the time of implementation of Release 3. The suppliers records are being maintained by the Procurement and Transportation Division in IMIS and, for the procurement-related suppliers, also in Reality, which includes additional information on commodities provided by the specific suppliers. The procurement officers are continuing to reregister all suppliers and also identifying new suppliers to include in the consolidated database.

Property and inventory control

36. Modifications are being made to the fixed assets module of the procurement software package to identify the three types of property (non-expendable, special and group inventory items) and will be implemented in the second half of 1997, initially in the Buildings Management Service, which is responsible for overall property management, and thereafter in the Departments/Offices.

37. The inventory module of the procurement software package is being implemented by the Procurement and Transportation Division in phases to include their three warehouses and for the furniture warehouse controlled by the Buildings Management Service.

Financial reporting

38. The information contained in IMIS is much more detailed and complex than that contained in the old systems. In addition, since the old systems are more than 30 years old, the reports available from those systems had been stabilized over a period of time. There are at present about 150 reports that have been put into production or are awaiting system test, of which 48 are directly related to financial transaction reporting. A certain number of them had to be modified because, once in production, they appeared not to meet fully the operational requirements of the Organization.

39. Since the implementation of Release 3, financial reports have been produced centrally by the Accounts Division. Starting as of December 1996, Executive Offices will start being capable of running their own reports in the following areas: requisitioning, obligations, allotments, subsidiary ledger entry and ledger balances.

40. It should be noted that initially, owing to the volume of data not converted, it was not possible to provide the users with consolidated reports showing the exact financial situation of their accounts. The situation has greatly improved, and a new consolidated expenditure report is being developed by the Accounts Division that will incorporate data that is in IMIS and data that is not yet in the system. In parallel, a major effort is under way to increase the number of reports available. Owing to the efforts to consolidate the implementation of Release 3 and to clean and refine the data, delays have occurred in the preparation of the financial statements as of June 1996. They will be made available in early January 1997.

IV. PAYROLL

41. As indicated in paragraph 4, it was necessary to assign temporarily the development team of Release 4, United Nations and contractors, to Release 3. Delays in the development of payroll, including time and attendance and insurance, have therefore occurred. Work has resumed and is proceeding along two parallel lines: the contractor is completing the analysis of requirements, while the United Nations team, in addition to reviewing the work of the contractor, is addressing policy issues that need to be resolved within the United Nations.

42. It should be noted that the development of the Medical Insurance Plan application is almost complete and work is under way to complete the remaining parts of the insurance processing, mainly the After Service Health Insurance scheme.

43. It is expected that Release 4 will be completed for system test by the United Nations by the end of the third quarter of 1997.

V. OFFICES AWAY FROM HEADQUARTERS

44. In view of the priority given to the implementation of Release 3, some delays have been incurred in implementing the human resources applications of the system at offices away from Headquarters.

45. As indicated above, the system was successfully implemented at Vienna and Bangkok, while it has been installed for training and practice purposes at Addis Ababa, Amman, Geneva, Nairobi and Santiago.

46. The successful implementation and operations at the United Nations Office at Vienna and the Economic and Social Commission for Asia and the Pacific confirmed the validity of the approach retained for the data collection, data cleansing and training of both technical and substantive staff. As planned, and in line with the recommendations of the Board of Auditors and of the Office of Internal Oversight Services, training was conducted by United Nations staff members.

47. Data from these two duty stations are now received at Headquarters on a weekly basis and the Office of Human Resources Management will soon access them for its global reporting. Work is under way to provide on-line access to copies of the databases to the Office of Human Resources Management clusters and to the Programme Planning and Budget Division, further improving the quality of information available centrally.

48. Preparatory work for implementation is at an advanced stage at Geneva and Santiago, while it is progressing at the other locations. Plans are being finalized to complete installation at all duty stations by mid-1997.

VI. TRAINING

49. Training is an essential and major component of the IMIS project and is moving in four directions:

(a) Training of users in computer skills for working in a technologically advanced environment;

(b) Training of the users to familiarize them with the new concepts introduced with IMIS, such as the new accounts code structure, the entitlements processing and the pre-encumbrances;

(c) Training of users in IMIS operations and in the use of the facilities developed for ongoing training and support;

(d) Training of technical support staff.

50. The main activities conducted since the last progress report have been the following:

(a) Training of implementation coordinators and human resources focal points from offices away from Headquarters in IMIS implementation procedures and operations. This training took place principally at Headquarters and included hands-on experience in selected Executive Offices and the Field Administration and Logistics Division;

(b) Training in Release 3 concepts and operations of 1,073 staff members from 25 different Offices and Departments at Headquarters. A total of 24 different courses were taught and of 149 classes were conducted;

(c) Training in human resources operations of users at Vienna and Bangkok;

(d) Advanced technical training of technical support staff from Geneva, Addis Ababa, Amman, Vienna and Nairobi.

51. In parallel, a training database allowing users to access the training modules for Releases 1 to 3 from their own workplace was installed. Also, a new desk procedures manual incorporating the revised human resources portion and a completely new portion for Release 3 was issued electronically and made available on-line to all users. The manual contains hypertext links that allow the users to navigate automatically through the various subjects. Finally, the Fast Reference Manual to guide the users in how to initiate actions in IMIS was revised and updated to incorporate Release 3 functionalities.

52. Currently, the IMIS project team is cooperating with the Office of Human Resources Management Training and Staff Development Service to incorporate IMIS into the Training Programme in United Nations Administration.

VII. LONG-TERM MAINTENANCE

53. Recruitment of staff for the long-term maintenance unit is under way and is expected to be completed by early 1997. In the meantime, discussions are taking place with the other organizations that use or will be using IMIS (the International Labour Organization (ILO), UNDP, UNHCR and UNICEF) to determine the most efficient and economical way to maintain a common system.

54. Already UNDP and UNICEF have decided to delegate to the United Nations the technical support of their servers and of the database management system. In this way they can benefit from the extensive experience gained by the United Nations, and at the same time the three organizations can achieve greater efficiency and economies of scale by reducing the total number of staff that would otherwise be required to run the system had each organization decided to do it separately.

55. All the organizations recognize that a common maintenance of the software would also be beneficial. This would reduce costs and most likely allow for better maintenance, as more improvements could be done than if each organization had to perform the maintenance in isolation. This cooperation has already enabled all the user organizations to benefit from changes and additions made to the system and financed by ILO, UNDP and the United Nations. For example, the United Nations will soon move to production of about 50 reports in the human resources area developed by UNDP, and it is coordinating with UNICEF regarding the use of some of the changes the latter plans to introduce to the system.

56. During a common testing of the entitlements system undertaken during the summer jointly by the United Nations, UNDP and UNICEF, it appeared, however, that greater benefits could also be achieved through a better coordination of the way administration operates in the three organizations. In other words, the more common the system of operations is in the human resources, finance and support services area, the less changes will need to be made to the software and the easier and more economical it will be to maintain the system. A meeting to review these issues will be convened soon and will be open also to other Organizations that have expressed interest in the usage of the system.

57. Another subject of interest to all the organizations, including the United Nations, and in particular the Field Administration and Logistics Division, is the remote accessing of IMIS. This would enable small duty stations, projects or missions to access the system without the need of expensive installations in the field, and in particular the need to deploy highly skilled and costly technical staff to support the operation locally. Since the United Nations will already have implemented the system and established an infrastructure in all regions of the world, it could be conceived that regional operation centres common to all organizations would be established, thus further reducing operating costs. This appears to be the way to go, but there are still many major technical obstacles. A solution may be linked to the porting of the application to another technical platform. Another solution being investigated would be to use some of the new Internet tools. Currently the Field Administration and Logistics Division, the Electronic Services Division and the IMIS team are looking at possible alternatives, and this subject will be discussed in the course of the meeting to be convened with the other organizations.

58. As part of maintenance, work is also under way to upgrade the application to the latest releases of the tools (operating system, relational database manager, application development tool, expert system) on which the system is based. This work is expected to be completed early December 1996.

VIII. OTHER ORGANIZATIONS AND PEACEKEEPING OPERATIONS

59. As indicated earlier, UNDP and ILO are already using the human resources applications. UNICEF and UNHCR plan to implement them during 1997.

60. UNESCO is closely reviewing IMIS and is installing it at its headquarters for evaluation. The World Food Programme is also looking with interest at the system. Other organizations, such as the International Civil Aviation

Organization continue to follow the developments, and inquiries have been received from the World Trade Organization.

61. Both UNICEF and UNHCR are still considering whether to use IMIS for their financial operations, while UNDP is moving ahead with a much deeper evaluation of its capabilities.

62. Because of the priority given to the implementation of Release 3, no progress was made for implementation at peacekeeping missions. Work is resuming in this direction, as indicated above, to research into remote accessing of the system.

IX. TECHNICAL INFRASTRUCTURE AND DESIGN

63. It may be recalled that IMIS has been built using the most modern technologies. Owing to this fact and to its size and complexity, no benchmarks exist that could have been used to forecast the performance of the system after implementation of Release 3. Performance problems were experienced during the first few weeks of operation. After several tunings of the system, the performance had greatly improved. However it seriously deteriorated again in October. Work is under way in several directions to remedy this problem, which is common in this type of technology. It should be noted that this issue was compounded by the unexpected high usage of the system, with the number of concurrent users multiplying by a factor of three in a very short period. The application has now stabilized and confirms the validity and robustness of the design in spite of the complexity related to the full integration of all applications into only one system. The tools upgrade will also provide the development team with additional means to better analyse the internal functioning of the system, identifying the most frequently used sets of data, for example, so that performance time can then be optimized.

64. Research is also progressing on installing on the main servers at Headquarters new memory and hardware tools that should contribute to increased performance.

65. Installation of the servers has been completed at five of the offices away from Headquarters, while the procurement of the remaining hardware for the other two offices is under way. Economies are being achieved through the standardization of the hardware platform throughout the duty stations.

66. Concerns are growing, however, owing to the relative fragility of the overall technical infrastructure, in particular local area networks, at most duty stations. Investment has been insufficient over the years, and the existing infrastructure is faced with an unrelenting increment in traffic of data and communications. The Electronic Services Division, among others, is now working on a plan to be implemented during the next biennium to upgrade this part of the overall infrastructure of the Organization, which has become essential for normal operations of the Organization. The weaknesses of the infrastructure already occasionally affect the operations of IMIS at Headquarters and may slow down the growth in the usage of the system at offices away from Headquarters.

X. THE INTEGRATED MANAGEMENT INFORMATION SYSTEM PROJECT IN PERSPECTIVE

67. It is recognized that the IMIS project has been one of the most visible activities of the Organization over the past six years. Numerous critical, as well as supportive, comments have been made. The Secretariat has endeavoured to keep Member States informed in an open and objective manner on the successes achieved and difficulties encountered, and the present report is in line with such an approach.

68. Since its inception, many quarters, both within the United Nations itself and the United Nations common system and among Member States, expressed doubts about the capability of the United Nations to complete what appeared to be a too ambitious project. It is to be recognized, however, that the Member States, through the Advisory Committee on Administrative and Budgetary Questions and the General Assembly, being adequately informed, eventually supported the Secretariat in the continuation of the effort in this difficult undertaking.

69. Few activities of the United Nations have been so closely and consistently monitored both internally, through a constant review by the Office of Internal Oversight Services, and externally: one review by independent experts conducted at the request of the General Assembly in 1992, one special review of the project conducted by the Board of Auditors in 1994 and annual progress reports submitted to the General Assembly. Scepticism, however, still prevails within the United Nations in spite of the achievements already attained. It is therefore necessary to put the efforts undertaken by the Organization for IMIS within context.

70. It should first of all be recalled that Member States themselves have rarely embarked on and succeeded in a project so ambitious, incorporating into one system most of the administrative activities of a Ministry, for example. The increasing number of inquiries received by the United Nations from Member States with respect to IMIS confirms the interest arising worldwide from the United Nations experience.

71. Worldwide research to analyse the difficulties, successes and failures in the area of information technology is also increasing. One of the most comprehensive studies conducted in the United States in 1994 shows that the rate of success, considered as completion on time and within budget, in this type of project, including small projects, in large companies was about 9 per cent only. Overall, more than 30 per cent of projects, for an estimated cost of more than $80 billion a year, is cancelled. Finally, in the largest United States companies, projects that get completed have on average only 42 per cent of the originally proposed features and functions.

72. It should be noted that, in many cases, failures concern projects that cover only part of the functionalities of IMIS; failure in developing personnel or accounting systems are common, for example, while these are only two of the many components of IMIS. Fully integrated administrative management systems are rare.

73. It must be borne in mind, however, that the United Nations had no other choice but to embark on the redesign and implementation of new systems, since those currently available were long obsolete and could not be maintained any longer. If IMIS had not been launched in 1990, by the year 2000, administration would not be able to operate.

74. The complexities and the value of the achievements of the United Nations in the development and implementation of IMIS are further confirmed by the continuous interest of the specialized press and of the technical circles in the project. During 1996, articles describing the United Nations efforts continued to be published in several countries and the Organization was invited to present the project at major high-level conferences.

75. The difficulties experienced by the United Nations with regard to the IMIS project, which are described in detail in this report, are to be considered normal, and the achievements need to be recognized. These achievements would not have been possible without the hard work, expertise and dedication of dozens of staff members, at all levels, from Executive Offices, offices away from Headquarters, the Field Administration and Logistics Division and the Department of Administration and Management, who did not hesitate to make an unprecedented effort for the success of the project. Theirs is a concrete demonstration of the commitment of the staff to work towards the achievements of reforms in the United Nations, reforms of which IMIS is and will be a major component. It is in fact more and more clear that IMIS is only a starting point for further changes and improvements in the way the Organization is administered and functions.

76. The difficulties and the pressures are not over and should not be underestimated. It is expected that not until mid-1997 will it be possible to declare that the implementation of Release 3 has been successful. The continuous support of the Member States in this difficult and important undertaking is therefore still required. On its part, the Secretariat will endeavour to continue to keep them informed on the progress of work in the most open and transparent manner, as demonstrated by this report.

ANNEX

Integrated Management Information System project status

Activity	Status	Actions under way
1. Release 1, human resources	Completed. Implemented at Headquarters in September 1993.	Maintenance activities to improve expanded usage.
2. Release 2, personnel benefits	Completed. Implemented at Headquarters in April 1995.	Refinement of entitlements processing to ensure integration with Payroll.
3. Release 3, finance and procurement	Mostly completed and implemented at Headquarters in April 1996.	Successful integration of financial and human resources applications.
(a) New account code structure	Successfully implemented. Some problems of translation between old and new codes.	Correction of errors almost completed. Correction of data under way.
(b) Data conversion	Mostly completed.	Reconciliations and supporting documentation being prepared.
(c) Recording of appropriations and sub-allotments	Bridge with budget system implemented.	Refinement of bridge.
(d) Funds sufficiency checking	Successfully implemented.	None. System fully operational.
(e) Travel	To be implemented 1 April 1997.	Development and testing of functionalities.
(f) Payables	Completed and implemented.	Cleansing of data problems arising from conversion.
(g) Receivables	Implemented with 95 per cent of data in IMIS.	Remaining 5 per cent being worked on.

	Activity	Status	Actions under way
(h)	Cash management	Implemented and operational.	Improvements being made to the software, and additional functionalities being developed.
(i)	Batch processing	Delays in the completion of process.	Development still under way. Expected completion by the end of the first quarter of 1997.
(j)	Bridges and interfaces	Completed and implemented.	Refinements being made to the payroll and inter-office voucher bridges. As scheduled, work under way to introduce full interface with the procurement system.
(k)	Procurement processing (including catalogue)	Being incrementally implemented.	See (j).
(l)	Suppliers roster	Implemented (over 5,000 suppliers uploaded).	Normal maintenance by Procurement and Transportation Division.
(m)	Property inventory control	Under development.	Modifications being made to procurement software package. Estimated implementation November 1997.
(n)	Financial reporting	Delays encountered.	Development of additional report under way. Reporting capability being deployed to Executive Offices.
(o)	Performance	Serious performance problems encountered.	Problem being addressed through review and tuning of code, upgrading of software tools, hardware upgrade.

Activity	Status	Actions under way
4. Offices away from Headquarters		
(a) Addis Ababa	Software installed for training purposes. Implementation of Release 1 expected July 1997.	Procurement of hardware, review of infrastructure.
(b) Amman	Software installed for training purposes. Implementation of Release 1 expected May 1997.	Procurement of hardware, data collection.
(c) Bangkok	Release 1 successfully implemented in September 1996.	
(d) Geneva	Software installed for training purposes. Implementation of Release 1 expected March 1997.	Data collection, planning of training.
(e) Nairobi	Software installed for training purposes. Implementation of Release 1 expected June 1997.	Data collection, training of technical support staff.
(f) Santiago	Software installed for training purposes. Implementation of Release 1 expected April 1997.	Data collection.
(g) Vienna	Release 1 successfully implemented (June 1996).	Review of Release 3.
5. Release 4, payroll	Deployment delayed owing to the need to assign additional resources to Release 3 implementation.	Development under way.
6. Long-term maintenance		Recruitment of staff under way. Review with other organizations possibilities for common maintenance.
7. Technical infrastructure		Upgrading of applications to latest releases of software under way.